

WARP II



eXtreme High Performance Compute Node - Dual Stratix 10 (XhpcN-DS10)



PRODUCT DESCRIPTION

From data ingestion to model & simulation to radar processing to computational finance to cyber security to edge analytics, the dual Stratix 10 eXtreme High Performance Compute Node (XhpcN-DS10), a.k.a WARP II, is the most versatile and highest performing FPGA accelerator card to hit the market!

The XhpcN-DS10 is designed to take on today's data-intensive computing problems by incorporating two of Intel's revolutionary Stratix 10 FPGAs, massive amounts of DDR4 and plenty of high speed I/O. With the OpenCL support included in the Board Support Package (BSP), the XhpcN-DS10 can now be easily programmed without the need to dive down into complicated Verilog or VHDL code.

FEATURES

- Dual Intel Stratix 10 FPGAs
- Up to 272 GB DDR4 (136 GB per FPGA)
- 20 TFLOPs (10 TFLOPs/FPGA)
- PCIe x16 Gen 3
- 2x QSFP+ 40/100GbE
- L tile: 40 GbE operating at 10 Gbps backplane performance
- H tile: 100 GbE operating at 28 Gbps backplane performance
- Intel Max10 FPGA
- Freescale K61 Microcontroller
- GPU sized PCIe Form Factor

APPLICATIONS

- Communications
- Computing
- Military
- Broadcast
- Medical
- Test & measurement

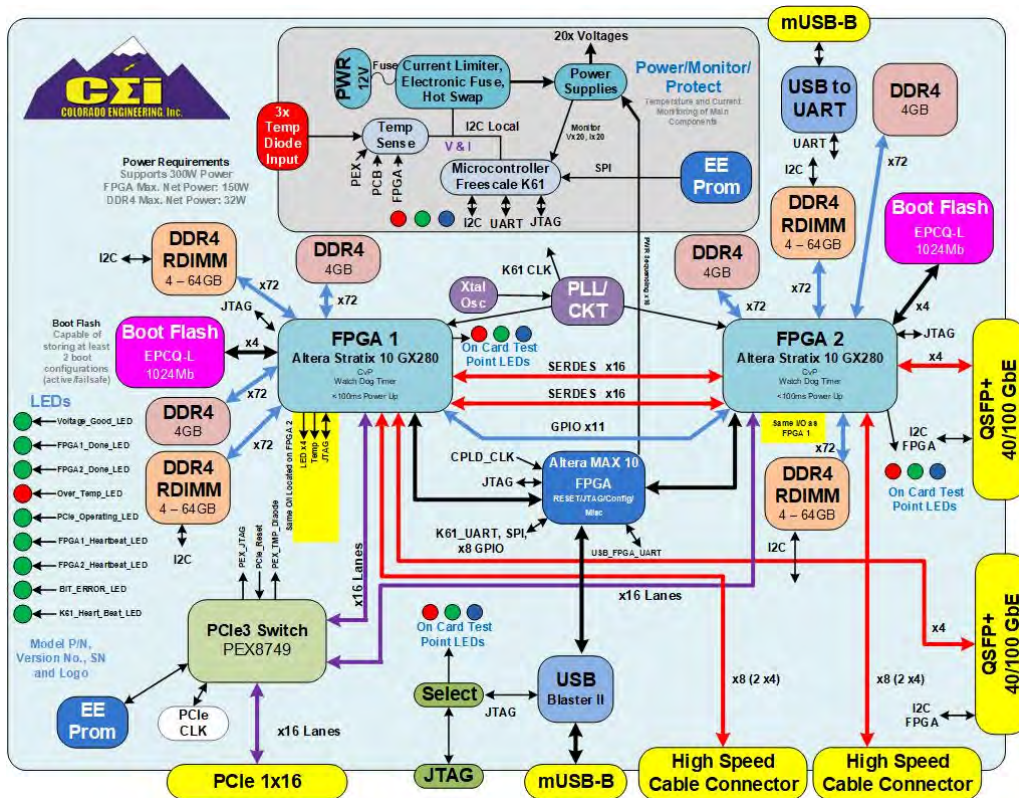


SPECIFICATIONS

Stratix 10 FPGA	DDR4 RAM	I/O	Power/Monitor/Protect/Config
<ul style="list-style-type: none"> • GX280UF50 • 96 XCVR • 1160 User I/O • 2.8M logic elements • 11,520 18x19 multipliers • 128 GB/s FPGA-to-FPGA • Memory bandwidth: $19.2 \times 8 = 153.6$ GB/s 	<ul style="list-style-type: none"> • 8 GB Discrete per FPGA • 4x RDIMM — 272 GB Max (136 GB/FPGA*) • 2400 MT/s • 19.2 GB/s 	<ul style="list-style-type: none"> • 40/100 GbE QSFP+ (25 Gbps x4) • mUSB—B • High speed cable connector (Optional) - 2 x4 SerDes (18 Gbps x4) 	<ul style="list-style-type: none"> • Freescale K61 mController • Intel Max10 FPGA • 1024 Mb Boot Flash per FPGA

CONFIGURATIONS

Model Number	Configuration
XhpcN-DS10	Dual Stratix 10
XhpcN-S10	Single Stratix 10



*May violate PCI Express full-height card specifications

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